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FILE 'HOME' ENTERED AT 18:40:09 ON 22 AUG 2005

=> file reg

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SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 19 AUG 2005 HIGHEST RN 861198-35-8

DICTIONARY FILE UPDATES: 19 AUG 2005 HIGHEST RN 861198-35-8

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TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

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Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> s qrdd/sqsp

L1 5461 QRDD/SQSP

=> s qrddss/sqsp

L2 216 QRDDSS/SQSP

=> file ca

COST IN U.S. DOLLARS

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ENTRY	SESSION
55.43	55.64

FULL ESTIMATED COST

FILE 'CA' ENTERED AT 18:40:51 ON 22 AUG 2005

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FILE COVERS 1907 - 18 Aug 2005 VOL 143 ISS 9  
FILE LAST UPDATED: 18 Aug 2005 (20050818/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 12

L3 47 L2

=> d ti 1-10

- L3 ANSWER 1 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Growth differentiation factor 8 (GDF8) neutralizing epitope-based growth enhancing vaccine that down-regulates GDF8 expression
- L3 ANSWER 2 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Cadherin-based muscle-targeting chimeric protein for treating muscle atrophy.
- L3 ANSWER 3 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Comparison of avian myostatin genes
- L3 ANSWER 4 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Myostatin rapid sequence evolution in ruminants predates domestication
- L3 ANSWER 5 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI The status, quality, and expansion of the NIH full-length cDNA project: The mammalian gene collection (MGC)
- L3 ANSWER 6 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI The status, quality, and expansion of the NIH full-length cDNA project: The mammalian gene collection (MGC)
- L3 ANSWER 7 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Cloning and sequencing analysis of myostatin gene of chicken and goose
- L3 ANSWER 8 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Genome evolution in yeasts
- L3 ANSWER 9 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Activin type II receptor extracellular domain fusion with Fc fragment of antibody for inhibiting GDF-8 and uses in treating degenerative disorders of muscle, bone, or glucose homeostasis.
- L3 ANSWER 10 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Modulating myostatin activity with metalloprotease and use in controlling muscle mass and treating muscle wasting disorder

=> d ti 11-20

- L3 ANSWER 11 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Evidence for the importance of genetic structuring to the structural and functional specialization of the Plasmodium falciparum var gene family

L3 ANSWER 12 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI ephA9, a novel avian receptor tyrosine kinase gene

L3 ANSWER 13 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Sequence homologs of bone morphogenic proteins of human and cDNAs encoding them and their uses

L3 ANSWER 14 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Peptides derived from the myostatin precursor as antagonists of growth/differentiation factor receptors

L3 ANSWER 15 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Genes expressed in atherosclerotic tissue and their use in diagnosis and pharmacogenetics

L3 ANSWER 16 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI A reticular rhapsody: phylogenic evolution and nomenclature of the RTN/Nogo gene family

L3 ANSWER 17 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Anti-GDF-8 antibodies and fragments for diagnosis, prevention and treatment of degenerative disorders of muscle, bone or insulin metabolism

L3 ANSWER 18 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Propionibacterium acnes genes and encoded protein sequences and their use in therapy and diagnosis of acne vulgaris

L3 ANSWER 19 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Molecular cloning of equine (Thoroughbred) myostatin cDNA and detection of myostatin precursor proteins in the serum

L3 ANSWER 20 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Expression of myostatin is not altered in lines of poultry exhibiting myofiber hyper- and hypoplasia

=> d ti 21-47

L3 ANSWER 21 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Use of truncated activin type II receptor, myostatin prodomain, or follistatin expression in transgenic animal to increase muscle mass

L3 ANSWER 22 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Protein and cDNA sequences for growth differentiation factor-8 from aquatic species and related gene knockout species for food industry

L3 ANSWER 23 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Zebrafish mutants identify an essential role for laminins in notochord formation

L3 ANSWER 24 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI cDNA and protein sequence of inhibitors of growth differentiation factor-8 (GDF-8) proteins of human and methods for their use

L3 ANSWER 25 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Propionibacterium acnes nucleic acids and proteins useful for therapy and diagnosis of acne vulgaris

L3 ANSWER 26 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Comparison of the genomes of two Xanthomonas pathogens with differing host specificities

L3 ANSWER 27 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Promyostatin peptides and their biological activities and use in inhibiting muscle growth and fat accumulation

L3 ANSWER 28 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Growth differentiation factor receptors, agonists and antagonists thereof,

for use in drug screening and in treating various pathological disorders

- L3 ANSWER 29 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Regulation of myostatin activity and muscle growth
- L3 ANSWER 30 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Growth differentiation factor-8 nucleic acid and polypeptide from aquatic species and transgenic aquatic species with improved muscle mass
- L3 ANSWER 31 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Sequence and analysis of chromosome 1 of the plant *Arabidopsis thaliana*
- L3 ANSWER 32 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Method for down-regulating GDF-8 activity
- L3 ANSWER 33 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Antibodies specific for growth differentiation factor-8 and methods of using same
- L3 ANSWER 34 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Growth and differentiation factor inhibitors and uses therefor
- L3 ANSWER 35 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Genomic organization, sequence and polymorphism of the porcine myostatin (GDF8; MSTN) gene
- L3 ANSWER 36 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Protein and DNA sequences encoding a human and mouse growth and differentiation factor (GDF-11), and uses thereof to genetically engineer animals, and in diagnostic, therapeutic, and drug screening applications
- L3 ANSWER 37 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Transgenic mice with disrupted growth differentiation factor-11 gene having increased muscle mass
- L3 ANSWER 38 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Immunological methods to modulate myostatin in vertebrate subjects
- L3 ANSWER 39 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Growth differentiation factor-8 from mammalian and avian animals and its role in increasing muscle tissue and bone content
- L3 ANSWER 40 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Characterization and distribution of Hxt1, a Na<sup>+</sup>/Cl<sup>-</sup>-dependent orphan transporter, in the human brain
- L3 ANSWER 41 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Organization of the human myostatin gene and expression in healthy men and HIV-infected men with muscle wasting
- L3 ANSWER 42 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Mutations in the myostatin gene cause double-muscling in mammals
- L3 ANSWER 43 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Growth differentiation factor-8 and polynucleotides encoding same
- L3 ANSWER 44 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Transgenic animals with disrupted expression of growth differentiation factor-8 or animals administered with antibodies to GDF-8
- L3 ANSWER 45 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Double muscling in cattle due to mutations in the myostatin gene
- L3 ANSWER 46 OF 47 CA COPYRIGHT 2005 ACS on STN  
TI Regulation of skeletal muscle mass in mice by a new TGF- $\beta$  superfamily member
- L3 ANSWER 47 OF 47 CA COPYRIGHT 2005 ACS on STN

TI Molecular cloning of cDNA for growth differentiation factor-8 of mouse and human

=> d 27

L3 ANSWER 27 OF 47 CA COPYRIGHT 2005 ACS on STN

AN 136:172724 CA

TI Promyostatin peptides and their biological activities and use in inhibiting muscle growth and fat accumulation

IN Lee, Se-Jin; McPherron, Alexandra C.

PA The Johns Hopkins University School of Medicine, USA

SO PCT Int. Appl., 175 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002009641	A2	20020207	WO 2001-US23510	20010726
	WO 2002009641	A3	20020510		
	WO 2002009641	C2	20030320		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2416260	AA	20020207	CA 2001-2416260	20010726
	AU 2001080799	A5	20020213	AU 2001-80799	20010726
	EP 1303534	A2	20030423	EP 2001-959217	20010726
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR 2001012785	A	20030701	BR 2001-12785	20010726
	JP 2004504826	T2	20040219	JP 2002-515196	20010726
	ZA 2003000483	A	20040219	ZA 2003-483	20030117
PRAI	US 2000-628112	A	20000727		
	WO 2001-US23510	W	20010726		

=> s 11

L4 1561 L1

=> s 14 and cleav?

244594 CLEAV?

L5 29 L4 AND CLEAV?

=> d ti 1-10

L5 ANSWER 1 OF 29 CA COPYRIGHT 2005 ACS on STN

TI Identification and cDNA sequencing of vitellogenin in Bombyx mandarina Moore

L5 ANSWER 2 OF 29 CA COPYRIGHT 2005 ACS on STN

TI Cadherin-based muscle-targeting chimeric protein for treating muscle atrophy.

L5 ANSWER 3 OF 29 CA COPYRIGHT 2005 ACS on STN

TI Biomarkers of cyclin-dependent kinase modulation in cancer therapy

L5 ANSWER 4 OF 29 CA COPYRIGHT 2005 ACS on STN

TI Systems, methods and kits for characterizing phosphoproteomes by digestion, chromatography and mass spectrometry

L5 ANSWER 5 OF 29 CA COPYRIGHT 2005 ACS on STN

TI Genes showing altered levels of expression in response to inhibitors of cyclin-dependent kinases and their use in screening for novel inhibitors  
 L5 ANSWER 6 OF 29 CA COPYRIGHT 2005 ACS on STN  
 TI Molecular Genetic Analyses of Potential  $\beta$ -Galactosidase Genes in *Xanthomonas campestris*  
 L5 ANSWER 7 OF 29 CA COPYRIGHT 2005 ACS on STN  
 TI Insight into the genome of *Aspergillus fumigatus*: analysis of a 922 kb region encompassing the nitrate assimilation gene cluster  
 L5 ANSWER 8 OF 29 CA COPYRIGHT 2005 ACS on STN  
 TI Modulating myostatin activity with metalloprotease and use in controlling muscle mass and treating muscle wasting disorder  
 L5 ANSWER 9 OF 29 CA COPYRIGHT 2005 ACS on STN  
 TI Use of patterns of gene expression to identify tissue types and in disease diagnosis and prognosis  
 L5 ANSWER 10 OF 29 CA COPYRIGHT 2005 ACS on STN  
 TI Complete genome sequence of the metabolically versatile photosynthetic bacterium *Rhodopseudomonas palustris*

=> d 8

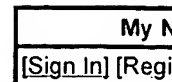
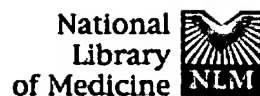
L5 ANSWER 8 OF 29 CA COPYRIGHT 2005 ACS on STN  
 AN 140:283388 CA  
 TI Modulating myostatin activity with metalloprotease and use in controlling muscle mass and treating muscle wasting disorder  
 IN Wolfman, Neil; Tomkinson, Kathy  
 PA Wyeth, John, and Brother Ltd., USA  
 SO PCT Int. Appl., 95 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004024092	A2	20040325	WO 2003-US28907	20030916
	WO 2004024092	A3	20040826		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2498044	AA	20040325	CA 2003-2498044	20030916
	US 2004138118	A1	20040715	US 2003-662438	20030916
	US 2005043232	A1	20050224	US 2003-665374	20030916
	EP 1549747	A2	20050706	EP 2003-754574	20030916
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	BR 2003014380	A	20050719	BR 2003-14380	20030916
PRAI	US 2002-411133P	P	20020916		
	US 2003-439164P	P	20030109		
	US 2003-486863P	P	20030710		
	WO 2003-US28907	W	20030916		

=> d ab 8

L5 ANSWER 8 OF 29 CA COPYRIGHT 2005 ACS on STN  
 AB It has been determined that metalloprotease **cleavage** of a myostatin

pro peptide results in activation of a latent inactive myostatin to an active form. Accordingly, methods of identifying agents that modulate metalloprotease mediated activation of myostatin are provided, as are agents identified using such methods. Also provided are methods of modulating muscle growth in an organism by increasing or decreasing metalloprotease mediated **cleavage** of a myostatin pro peptide. The invention demonstrated that **cleavage** of the pro peptides by BMP-1/ tolloid (TLD) proteinase. The invention further relates to treating muscle wasting disease associated with muscular dystrophy, cachexia, sarcopenia, diabetes and obesity.



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19:00:35

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#17 Search bmp11 gdf8

18:57:38

2

#15 Search bmp11 mutation

18:54:48

1

#14 Search bmp11 residue mutation

18:54:44

0

#12 Search weiss sidhu alanine scanning

13:23:40

1

#11 Search "Sidhu SS"[Author]

13:20:25

133

#6 Search alanine scanning mutagenesis

13:15:48

727

#4 Search kambadur 1997

11:30:14

2

#3 Search kambadur

11:30:09

41

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